# Harvard 2022 r6 1ac

### FW

#### Ethics must be derived from the constitutive features of agents – ethics based internally fail because they can’t generate universal obligations and ethics based externally fail because they are nonbinding as agents could opt-out and have no motivation to follow them which means they fail to guide action.

#### Constitutivism solves – it allows for universal obligations among all agents but they are binding and cannot be opted out of.

#### Next, only practical reason is constitutive:

#### [1] Regress – to question why one should reason concedes its authority since it is an act of reasoning itself which proves it’s binding and inescapable

#### [2] Agents can shift between different identities but doing so requires reason - it unifies the subject and is the only enterprise agents cannot escape

#### Ferrero 09 (Luca Ferrero, [Luca Ferrero is a Philosophy professor at University of California, Riverside. His areas of interest are Agency Theory, including Intentionality and Personal identity; Practical Reasoning; and Meta-Ethics], “Constitutivism and the Inescapability of Agency”. Oxford Studies in Metaethics, vol. IV, Jan 12, 2009. <https://philarchive.org/archive/FERCATv1> BHHS AK recut

Agency is special in two respects. First, agency is the enterprise with the largest jurisdiction.¹² All ordinary enterprises fall under it. To engage in any ordinary enterprise is ipso facto to engage in the enterprise of agency. In addition, there are instances of behavior that fall under no other enterprise but agency. First, intentional transitions in and out of particular enterprises might not count as moves within those enterprises, but they are still instances of intentional agency, of bare intentional agency, so to say. Second, agency is the locus where we adjudicate the merits and demerits of participating in any ordinary enterprise. Reasoning whether to participate in a particular enterprise is often conducted outside of that enterprise, even while one is otherwise engaged in it. Practical reflection is a manifestation of full-fledged intentional agency but it does not necessarily belong to any other specific enterprise. Once again, it might be an instance of bare intentional agency. In the limiting case, agency is the only enterprise that would still keep a subject busy if she were to attempt a ‘radical re-evaluation’ of all of her engagements and at least temporarily suspend her participation in all ordinary enterprises.

#### That justifies universalizability - insofar as there is no a priori distinction between reasoners, a reason for one agent must also be a reason for another; if all agents cannot set and pursue an end, it is not constitutive of agency. Willing a maxim that violates freedom is a contradiction in conception – you cannot violate someone’s freedom without having your own freedom to do so.

#### **The right to freedom necessitates a state to enforce it – objections to the state are unjust under the framework because they would involve justifying coercion**

Ripstein 04 [Arthur Ripstein, (University Professor of Law and Philosophy, [University of Toronto](https://scholar.google.com/citations?view_op=view_org&hl=en&org=8515235176732148308)) "Authority and Coercion" Philosophy & Public Affairs, 32: 2–35, 2004, http://onlinelibrary.wiley.com/doi/10.1111/j.1467-6486.2004.00003.x/abstract, DOA:12-16-2017 // WWBW]

Kant explains the need for the three branches of government in Rousseau’s vocabulary of the “general will.” Kant finds this concept helpful, since it manages to capture the way in which the specificity of the law and the monopoly on its [the law’s] enforcement do [is] not thereby make it the unilateral imposition of one person’s will upon another. Instead, it is what Kant calls an “omnilateral” will, since all must agree to set up procedures that will make right possible. All must agree, because without such procedures, equal freedom is impossible, and so the external freedom of each is impossible. But the sense in which they must agree is not just that they should agree; it is that they [one] cannot object to being forced to accept those procedures, because any objection would be nothing more than an assertion of the right to use force against others unilaterally. Once the concept of the General Will is introduced, it provides further constraints on the possibility of a rightful condition, and even explains the ways in which a state can legitimately coerce its citizens for reasons other than the redress of private wrongs. Kant’s treatment of these issues of “Public Right” has struck many readers as somewhat perfunctory, especially after his meticulously detailed, if not always transparent, treatment of private right. He treats these issues as he does because he takes them to follow directly from the institution of a social contract. The details of his arguments need not concern us here, because he does not claim that these exhaust the further powers of the state. Instead, he puts them forward as additional powers a state must have if it is to create a rightful condition, and it is the structure of that argument that is of concern here.

#### Thus, the standard is consistency with the omnilateral will.

#### Impact calc: Intentions first – only the intention in pursuing a certain end is relevant when considering whether or not it is universalizable. Prefer for action theory - Any action can be split into infinite smaller actions. For example, when I’m taking a bite of food, I am making infinite movements of my hand and mouth – only the intention unifies the action. If we can’t unify action, we can’t call actions moral or immoral because they are made up of infinite parts. Prefer additionally:

**[1] Performativity – arguing against my framework presupposes freedom because without freedom to reason you would not be able to make arguments and try to win. – this means that contesting any of my arguments proves my framework true.**

#### [3] Humans have unconditional value since they have the power to confer value onto objects – means humans are ends in themselves and must not be treated as a mere means

**Korsgaard 83** (Christine Korsgaard, [Christine Marion Korsgaard is an American [philosopher](https://en.wikipedia.org/wiki/Philosopher) and Arthur Kingsley Porter Professor of Philosophy at Harvard University whose main scholarly interests are in moral philosophy and its history; the relation of issues in moral philosophy to issues in metaphysics, the philosophy of mind, and the theory of personal identity; the theory of personal relationships; and in normativity in general], “Two Distinctions in Goodness,” The Philosophical Review Vol. 92, No. 2 (Apr., 1983), pp. 169-195, JSTOR) BHHS AK recut

The argument shows how Kant's idea of justification works. It can be read as a kind of regress upon the conditions, starting from an important assumption. The assumption is that when a rational being makes a choice or undertakes an action, [they] he or she supposes the object to be good, and its pursuit to be justified. At least, if there is a categorical imperative there must be objectively good ends, for then there are necessary actions and so necessary ends (G 45-46/427-428 and Doctrine of Virtue 43-44/384-385). In order for there to be any objectively good ends, however, there must be something that is unconditionally good and so can serve as a sufficient condition of their goodness. Kant considers what this might be: it cannot be an object of inclination, for those have only a conditional worth, "for if the inclinations and the needs founded on them did not exist, their object would be without worth" (G 46/428). It cannot be the inclinations themselves because a rational being would rather be free from them. Nor can it be external things, which serve only as means. So, Kant asserts, the unconditionally valuable thing must be "humanity" or "rational nature," which he defines as "the power set to an end" (G 56/437 and DV 51/392). Kant explains that regarding your existence as a rational being as an end in itself is a "subjective principle of human action." By this I understand him to mean that we must regard ourselves as capable of conferring value upon the objects of our choice, the ends that we set, because we must regard our ends as good. But since "every other rational being thinks of his existence by the same rational ground which holds also for myself' (G 47/429), we must regard others as capable of conferring value by reason of their rational choices and so also as ends in themselves. Treating another as an end in itself thus involves making that person's ends as far as possible your own (G 49/430). The ends that are chosen by any rational being, possessed of the humanity or rational nature that is fully realized in a good will, take on the status of [are] objective goods. They are not intrinsically valuable, but they are objectively valuable in the sense that every rational being has a reason to promote or realize them.

#### [4] A posteriori ethics fail:

#### [a] Problem of induction

Vickers 14, John Vickers, 2014, The Problem of Induction, https://plato.stanford.edu/entries/induction-problem/

The original problem of induction can be simply put. It concerns the support or justification of inductive methods; methods that predict or infer, in Hume's words, that “instances of which we have had no experience resemble those of which we have had experience” (THN, 89). Such methods are clearly essential in scientific reasoning as well as in the conduct of our everyday affairs. The problem is how to support or justify them and it leads to a dilemma: the principle cannot be proved deductively, for it is contingent, and only necessary truths can be proved deductively. Nor can it be supported inductively—by arguing that it has always or usually been reliable in the past—for that would beg the question by assuming just what is to be proved.

#### [5] Consequentialism fails – A] Predictions assumes specific causes of past consequences which can’t be verified as the actual cause B] Butterfly effect - every action has infinite consequences so it is impossible to evaluate an action; one government policy could end up causing nuclear war in a million years. C] Aggregation is impossible – pleasure and pain are subjective – we have no idea how many headaches equal a migraine

#### [6] Oppression is caused by arbitrary exclusion of others – only universalizability makes sure that we include everyone equally. Farr 02

Arnold Farr. [Arnold Farr is a Philosophy professor at the University of Kentucky. His research interests are German idealism, Marxism, critical theory, philosophy of race, postmodernism, psychoanalysis, and liberation philosophy. He has published numorous articles and book chapters on all of these subjects], “Can a Philosophy of Race Afford to Abandon the Kantian Categorical Imperative?”, 2002, blog.ufba.br/kant/files/2009/12/Can-a-Philosophy-of-Race-Afford-to-Abandon-the.pdf. /BHHS AK recut

The attack on Kantian formalism began with Hegel’s criticism of the Kantian philosophy.14 The list of contemporary theorists who follow Hegel’s line of criticism is far too long to deal with in the scope of this paper. Although these theorists may approach the problem of Kantian formalism from a variety of angles, the spirit of their criticism is basically the same: The universality of the categorical imperative is an abstraction from one’s empirical conditions. Kant is often accused of making the moral agent an abstract, empty, noumenal subject. Nothing could be further from the truth. The Kantian subject is an embodied, empirical, concrete subject. However, this concrete subject has a dual nature. Kant claims in the Critique of Pure Reason as well as in the Grounding that human beings have an intelligible and empirical character.15 It is impossible to understand and do justice to Kant’s moral theory without taking seriously the relation between these two characters. The very concept of morality is impossible without the tension between the two. By “empirical character” Kant simply means that we have a sensual nature. We are physical creatures with physical drives or desires. The very fact that I cannot simply satisfy my desires without considering the rightness or wrongness of my actions suggests that my empirical character must be held in check by something, or else I behave like a Freudian id. My empirical character must be held in check by my intelligible character, which is the legislative activity of practical reason. It is through our intelligible character that we formulate principles that keep our empirical impulses in check. The categorical imperative is the supreme principle of morality that is constructed by the moral agent in his/her moment of self-transcendence. What I have called self-transcendence may be best explained in the following passage by Onora O’Neill: In restricting our maxims to those that meet the test of the categorical imperative we refuse to base our lives on maxims that necessarily make our own case an exception. The reason why a universilizability criterion is morally significant is that it makes our own case no special exception (G, IV, 404). In accepting the Categorical Imperative we accept the moral reality of other selves, and hence the possibility (not, note, the reality) of a moral community. The Formula of Universal Law enjoins no more than that we act only on maxims that are open to others also.16 O’Neill’s description of the universalizability criterion includes the notion of self-transcendence that I am working to explicate here to the extent that like self-transcendence, universalizable moral principles require that the individual think beyond his or her own particular desires. The individual is not allowed to exclude others as rational moral agents who have the right to act as he acts in a given situation. For example, if I decide to use another person merely as a means for my own end I must recognize the other person’s right to do the same to me. I cannot consistently will that I use another as a means only and will that I not be used in the same manner by another. Hence, the universalizability criterion is a principle of consistency and a principle of inclusion. That is, in choosing my maxims I attempt to include the perspective of other moral agents.

[7] **Resolvability: Clarity of weighing under interpretation of Kantianism: perfect duties above imperfect duties, duties in right, etc. All other FWs are consequentialist that use unquantifiable prob, mag, or prob x mag. Resolvability is an independent voter because otherwise the judge can’t make a decision which means it’s a constraint on any ROB because otherwise the round is impossible**

#### Thus, the advocacy: Resolved: The appropriation of outer space by private entities is unjust. I’m willing to spec what you want as long as I don’t abandon my maxim.

Appropriation: the action of taking something for one's own use, typically without the owner's [permission](https://www.google.com/search?q=appropriation+definition&oq=appropriation+definition&aqs=chrome..69i57.2599j0j7&sourceid=chrome&ie=UTF-8). (miriam webster)

[Private entity: **any person or private group, organization, proprietorship, partnership, trust, cooperative, corporation, or other commercial or nonprofit entity**](https://www.law.cornell.edu/definitions/uscode.php?width=840&height=800&iframe=true&def_id=6-USC-625312480-168358316&term_occur=999&term_src=title:6:chapter:6:subchapter:I:section:1501#:~:text=(A)%20In%20general%20Except%20as,%2C%20employee%2C%20or%20agent%20thereof.)

[Outer space: the physical universe beyond the earth's atmosphere.](https://www.google.com/search?q=outer+space+definition&sxsrf=APq-WBtjOLHpdRyhXhhCBwnjRhbAg1mSyg%3A1645369154116&ei=QlcSYrbsBu2nptQPtuiZ2As&ved=0ahUKEwi2ldLfxY72AhXtk4kEHTZ0BrsQ4dUDCA4&uact=5&oq=outer+space+definition&gs_lcp=Cgxnd3Mtd2l6LXNlcnAQAzIKCAAQgAQQhwIQFDIFCAAQgAQyBggAEAcQHjIFCAAQgAQyBQgAEIAEMgUIABCABDIGCAAQBxAeMgYIABAHEB4yBggAEAcQHjIGCAAQBxAeOgQIABBDOgoIABCxAxCxAxBDOggIABCxAxCDAToHCAAQsQMQCjoECAAQDUoECEEYAEoECEYYAFAAWPYLYLMNaABwAXgAgAFviAHzBpIBBDExLjGYAQCgAQHAAQE&sclient=gws-wiz-serp)

### Offense

#### 1] Out of the possibility of extraterrestrial reasoners, we have an obligation to respect their habitats and not interfere through exploration.

Brian Patrick Green 2014, Santa Clara University, "Ethical Approaches to Astrobiology and Space Exploration: Comparing Kant, Mill, and Aristotle," Scholar Commons, https://scholarcommons.scu.edu/markkula/5/

But to assume that Kant has not considered these questions is an enormous mistake. In 1755, quite early in his career, Kant published the book Universal Natural History and Theory of the Heavens, where he described the solar nebular hypothesis (now the accepted theory for how the solar system formed).4 More than that, Kant not only allowed that extraterrestrial intelligences might exist, he believed that if they did not yet exist, that someday they would,5 and that some of these ETIs would be inferior and some superior to humans in intelligence.6 One might wonder if the young Kant’s belief in ETIs continued into his older years, when he was writing on ethics. There is good evidence that it does. Writing his Foundations of the Metaphysics of Morals, 30 years after his work on the nebular hypothesis, Kant is explicit – he is not just discussing humans, but “all rational beings.” 7 So with respect deontology and extraterrestrial intelligent life, Case 1) on the chart, Kant would extend the same full dignity and respect to ETIs which humans owe to each other, in accord with his categorical imperative, which requires the universalizability of moral norms8 and treating all rational beings as ends in themselves.9 For deontology and non-intelligent life, Case 2), Kant argues that animals, as non-rational beings, are of only relative worth. They are not as ends in themselves, not persons, but things.10 If humans discovered non-intelligent life on other worlds (most likely microbes, but if larger then we would have to carefully evaluate what it means to be intelligent, and make sure the discovered life does not qualify), according to Kant, we could do with it as we pleased. While some contemporary moral philosophers have tried to reinterpret or rehabilitate Kant on animals, these works are developments of Kant’s philosophy; they are not his philosophy itself.11 So while Kantianism might be modifiable into a system which is more friendly towards the rest of the living world, without these modifications it is not. For non-life and Kantian deontology, Case 3), there is likewise a simple answer: nonliving things are just things. Non-living things are not a moral concern, they are merely instrumental, and as such intelligent creatures can treat these things as they wish. However, there is an odd exception to this conclusion which is worth mentioning (and which I note with a star in the table). Kant believed that if other planets were not yet inhabited, they someday would be. If this is the case, then what of planets currently without intelligent life but which may someday have it? Ought we to anticipate these intelligent creatures and therefore respect them proactively by respecting their prospective goods? Kant does not say (perhaps because he was not interested in speculating or because humans were, in his time, far from being in a position to affect the futures of these planets). However, given the importance of rational beings in Kant’s system (rationality, teleology, and morality are the purpose of universe) the answer is possibly, or even probably, yes.

#### 2] Private entities are incapable of making omnilateral decisions as privatization entails that they withhold information which limits deliberation over making maxims.

Chiara Cordelli 2016, University of Chicago, Political Science & the College [cordelli@uchicago.edu](mailto:cordelli@uchicago.edu) https://www.law.berkeley.edu/wp-content/uploads/2016/01/What-is-Wrong-With-Privatization\_UCB.pdf

The intrinsic wrong of privatization, I will suggest, rather consists in the creation of an institutional arrangement that, by its very constitution, denies those who are subject to it equal freedom. I understand freedom as an interpersonal relationship of reciprocal independence. To be free is not to be subordinated to another person’s unilateral will. By building on an analytical reconstruction of Kant’s Doctrine of Right, I will argue that current forms of privatization reproduce (to a different degree) within a civil condition the very same defects that Kant attributes to the state of nature, or to a pre-civil condition, thereby making a rightful condition of reciprocal independence impossible. Importantly, this is so even if private actors are publicly authorized through contract and subject to regulations, and even if they are committed to reason in accordance with the public good. The reason for this, as I will explain, derives from the fact that private agents are constitutionally incapable of acting omnilaterally, even if their actions are omnilaterally authorized by government through some delegation mechanism, e.g. a voluntary contract. Omnilateralness, I will suggest, must be understood as a function of 1) rightful judgment and 2) unity. By rightful judgment I mean the capacity to reason publicly and to make universal rules that are valid for everyone, according to a juridical ideal of right, as necessary to solve the problem of the unilateral imposition of private wills on others. By unity I mean the capacity to make rules and decisions that change the normative situation of others, as a part of a unified system of decision-making. The condition of unity is crucial, as I shall later explain, insofar as there might be multiple interpretations compatible with rightful judgment, which would still problematically leave the definition of people’s rightful entitlements indeterminate. Further, the practical realization of the juridical idea of an omnilateral will, I will contend, requires embeddedness within a shared collective practice of decision-making. In practice, rightful judgment can only obtain when certain shared background frameworks that structure practical reasoning and confer unity to that reasoning are in place. The rules of public administration and the authority structure of bureaucracy should be understood as playing this essential function of giving empirical and practical reality to the omnilateral will, as far as the execution of rules and the concrete definition of entitlements are concerned. Together, these two requirements are necessary, (whether they are also sufficient is a different question), to make an action the omnilateral action of a state, which has the moral power to change the normative situation of citizens, by fixing the content of their rights and duties in accordance with the equal freedom of all. The phenomenon of privatization thus raises the fundamental questions of why we need political institutions to begin with, and what makes an action an action of the state. Insofar as private agents make decisions that fundamentally alter the normative situation (the rights and duties) of citizens, and insofar as, by definition, private agents are not public officials embedded in that shared collective practice, their decisions, even if well intentioned and authorized through contract, cannot count as omnilateral acts of the state. They rather and necessarily remain unilateral acts of men. Hence, I will conclude, for the very same reasons that we have, following Kant, a duty to exit the state of nature so as to solve the twofold problems of the unilateral imposition of will on others and the indeterminacy of rights, we also have a duty to limit privatization and to support, on normative grounds, a case for the re-bureaucratization of certain functions. Therefore, my paper provides foundational reasons to agree with Richard Rorty’s nonfoundational defense of bureaucracy as stated in the opening epigraph, since only agents who are appropriately embedded within a bureaucratic structure, properly understood, are, in many cases, capable of acting omnilaterally. The “bosses” I am here concerned with are not primarily those who 5 can unilaterally impose their will on us in their capacity as private employers, but rather any private actor who acts unilaterally while in the garb of the state.

#### 3] Space Exploration is non universalizable - a). Entails that everyone leaves Earth which means that no one would be around to create the means to leave earth

**4] Space is not subject to property rights – a). It has no physical manifestation as space is by definition the absence of matter which means it cannot be measured, bordered, or divided, thus it cannot be owned b). Owning unexplored planets/space is incoherent – there could be other agents there, and it can’t be deemed an agents property lest agents have a rational conception of it.**

### UV

#### [1] Aff Theory – a] the aff gets it because otherwise the 1NC could engage in unchecked, infinite abuse which outweighs anything else, b] it’s drop the debater because the 2AR is too short to win a shell AND substance so theory can only check abuse for the aff if it’s a win condition, c] no neg RVI because otherwise they could dump in the 2n for 6 minutes and get away with anything by sheer brute force, d) competing interps because you have 6 minutes to respond to my 1ar arguments so you should have to prove a better model e) Aff theory first – it’s a much larger strategic loss because 1min is ¼ of the 1AR vs 1/7 of the 1NC which means there’s more abuse if I’m devoting a larger fraction of time.

#### [2] Permissibility affirms:

#### A] Dictionary.com defines “ought”: as a verb “used to express justice, moral rightness, or the like” and “wrong” as “not in accordance with what is morally right or good” – proving something isn’t wrong means it’s right.

#### B] Otherwise we’d have to have a proactive justification to do things like drink water.

#### [3] Presumption affirms:

#### A] Statements are true before false since if I told you my name, you’d believe me.

#### B] Epistemics – we wouldn’t be able to start a strand of reasoning since we’d have to question that reason.

### Advantage

#### Private companies are gearing up to colonize Mars

Sheetz 4/23 [(Michael, a Space Reporter for CNBC.com) “INVESTING IN SPACE Elon Musk wants SpaceX to reach Mars so humanity is not a ‘single-planet species’” CNBC, 4/23/2021. https://www.cnbc.com/2021/04/23/elon-musk-aiming-for-mars-so-humanity-is-not-a-single-planet-species.html] BC

SpaceX founder and CEO Elon Musk remains focused on his vision for the company: Establishing a permanent human presence on Mars, with its Starship rockets carrying people to and from the red planet.

“We don’t want to be one of those single planet species, we want to be a multi-planet species,” Musk said on Friday, speaking after the company launched its Crew-2 mission to orbit.

“It’s been now almost half a century since humans were last on the moon. That’s too long, we need to get back there and have a permanent base on the moon — again, like a big permanently occupied base on the moon. And then build a city on Mars to become a spacefaring civilization, a multi-planet species,” Musk also said.

Starship is the enormous stainless steel rocket that SpaceX has been building and testing at its development facility in Boca Chica, Texas. Starship’s goal is to launch cargo and people on missions to the moon and Mars. Current Starship prototypes stand at about 150 feet tall, or about the size of a 15-story building, and each one is powered by three Raptor rocket engines.

Musk has previously estimated that it will cost about $5 billion to fully develop Starship, although SpaceX has not disclosed how much it has spent on the program to date. The company has steadily raised funds in the past few years, to fund both Starship and its similarly ambitious Starlink project, with SpaceX’s valuation soaring to about $74 billion — making it one of the most valuable private companies in the world.

Additionally, SpaceX last week won a $2.9 billion contract from NASA, to help the space agency land astronauts on the moon’s surface with the first crewed mission targeting 2024.

″[Starship has] mostly been funded internally thus far and its pretty expensive. As you can tell, if you’ve been watching videos, we’ve blown up a few of them,” Musk said.

The company has performed multiple successful test flights of Starship, although landing attempts after the last four high-altitude flights ended in fiery explosions. Despite the the prototypes’ destruction, SpaceX sees the test flights as progress toward creating a rocket that is fully reusable. SpaceX’s current Falcon fleet of rockets is partially reusable, as the company can land and reuse the rocket’s boosters.

But Musk hopes Starship transforms space travel into something more akin to commercial air travel. The rocket’s enormous size would also make it capable of launching several times as much cargo at once — for comparison, while SpaceX’s Falcon 9 rockets can send as many as 60 Starlink satellites at a time, SpaceX says Starship will be able to launch 400 Starlink satellites at a time.

Musk remains “highly confident” that SpaceX will land humans on Mars by 2026, saying last December that it’s an achievable goal “about six years from now.” He added that SpaceX plans to send a Starship rocket without crew “in two years.”

In the meantime, SpaceX has many milestones to go before Starship can carry passengers. The rocket has yet to reach orbit. Musk last year said that the company will fly “hundreds of missions with satellites before we put people on board.”

Musk may be focused on Mars, but the hurdles of Starship’s development are not lost on the space billionaire.

“It’s a tough vehicle to build because we’re trying to crack this nut of a rapid and fully reusable rocket,” Musk said. “But the thing that’s really important to revolutionize space is a rapidly reusable rocket that’s reliable, too.”

#### The scenario is terrestrial war – colonies foster global suspicion and miscalculation which make conflict exponentially more likely

Morton 18 [(Adam, a retired philosopher attached to the University of British Columbia. He is a philosophical generalist with a particular interest in issues about knowledge and about how people understand one another. His book Should We Colonize Other Planets?​ is available now.) “Colonizing Other Planets Could Trigger War on Earth | Opinion” News Week, 11/22/2018. https://www.newsweek.com/colonizing-other-planets-could-trigger-war-earth-and-ecological-disaster-1226630] BC

Plans for the exploration and even colonization of other planets are very much in the air, and getting to Mars in particular has become a billionaire's hobby lately. Elon Musk would like to establish a human colony on Mars in a matter of decades. (For the foreseeable future—a century, I would venture—Mars will be the only real possibility.) But planetary colonies may be a bad idea, even a disastrous idea. So, it is important to see the arguments against them, as well as their appeal. I begin with a reason that is sometimes made central to proposals for colonies—the idea that we should achieve them as soon as it is feasible.

It is a call for escape from imminent danger. The idea is that nuclear war, ecological catastrophe, or the rise of artificially intelligent robots, will wipe out humans on Earth. But a colony far away might survive, so that the species continues. Stephen Hawking is among those who have argued, or usually just pronounced, for versions of this (and if you want scientific authority, it is hard to do better). But the idea has serious flaws. It is hard to think of even a post-apocalyptic Earth that is less hospitable to any terrestrial life than Mars, let alone elsewhere in the solar system, so the challenges are enormous. But let us ignore that. Suppose that a colony had a reasonable chance of surviving, would the argument from danger justify founding it soon? I think not.

One danger is nuclear and biological war: One nation or ethnic group fears or hates another enough to unleash bombs or viruses. In a bad scenario they succeed. Millions die, and their territory becomes uninhabitable. In the worst scenario, the other side retaliates or the affliction spreads and eventually everyone is dead. But people survive on Mars. Which people? They will include members of one group or their opponents, so if the aim really is to wipe out this group it will be directed at the colonists as well. They are hated, and they are capable of retaliation. Bomb-bearing rockets are much simpler to make than people-bearing rockets. And someone crazy enough to push the button would be crazy enough to direct them at the hated enemy wherever they are found. So, the colony would not be safe. At any rate, it will not be not safe enough that founding it is a better bet than making war less likely on Earth. Worse, any nation party to founding a colony will arouse suspicion in its enemies that it is scheming to start and survive a war. And this makes war more rather than less likely.

#### Nuclear war causes extinction – famine and climate change

Starr 15 [(Steven, Director of the University of Missouri’s Clinical Laboratory Science Program and a senior scientist at the Physicians for Social Responsibility) “Nuclear War, Nuclear Winter, and Human Extinction,” Federation of American Scientists, 10/14/2015] DD  
While it is impossible to precisely predict all the human impacts that would result from a nuclear winter, it is relatively simple to predict those which would be most profound. That is, a nuclear winter would cause most humans and large animals to die from nuclear famine in a mass extinction event similar to the one that wiped out the dinosaurs.

Following the detonation (in conflict) of US and/or Russian launch-ready strategic nuclear weapons, nuclear firestorms would burn simultaneously over a total land surface area of many thousands or tens of thousands of square miles. These mass fires, many of which would rage over large cities and industrial areas, would release many tens of millions of tons of black carbon soot and smoke (up to 180 million tons, according to peer-reviewed studies), which would rise rapidly above cloud level and into the stratosphere. [For an explanation of the calculation of smoke emissions, see Atmospheric effects & societal consequences of regional scale nuclear conflicts.]

The scientists who completed the most recent peer-reviewed studies on nuclear winter discovered that the sunlight would heat the smoke, producing a self-lofting effect that would not only aid the rise of the smoke into the stratosphere (above cloud level, where it could not be rained out), but act to keep the smoke in the stratosphere for 10 years or more. The longevity of the smoke layer would act to greatly increase the severity of its effects upon the biosphere.

Once in the stratosphere, the smoke (predicted to be produced by a range of strategic nuclear wars) would rapidly engulf the Earth and form a dense stratospheric smoke layer. The smoke from a war fought with strategic nuclear weapons would quickly prevent up to 70% of sunlight from reaching the surface of the Northern Hemisphere and 35% of sunlight from reaching the surface of the Southern Hemisphere. Such an enormous loss of warming sunlight would produce Ice Age weather conditions on Earth in a matter of weeks. For a period of 1-3 years following the war, temperatures would fall below freezing every day in the central agricultural zones of North America and Eurasia. [For an explanation of nuclear winter, see Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences.]

Nuclear winter would cause average global surface temperatures to become colder than they were at the height of the last Ice Age. Such extreme cold would eliminate growing seasons for many years, probably for a decade or longer. Can you imagine a winter that lasts for ten years?

The results of such a scenario are obvious. Temperatures would be much too cold to grow food, and they would remain this way long enough to cause most humans and animals to starve to death.

Global nuclear famine would ensue in a setting in which the infrastructure of the combatant nations has been totally destroyed, resulting in massive amounts of chemical and radioactive toxins